

In the claims:

1. - 113. Withdrawn.

114. (new) A method for outputting a plurality of synchronous video signals from a plurality of digital recorders to a receiver, said synchronous video signals selected from a group comprising a playback of recorded signals, relayed signals and a combination thereof are originated and fed to said digital recorders via first transmission lines by a plurality of video transmitters;

each of said synchronous video signals contains a code signal corresponding to a code allotted to one of said transmitters and a synchronous time and date signal corresponding to one of the time and date of the recording of said recorded signal and the time and date of outputting said relayed signal;

said synchronous video signals are fed to said receiver via second transmission lines for outputting a display signal selected from a group comprising at least one individual video signal, sequencing individual video signals, at least one multi screen signal and sequencing multi screen signals;

said receiver includes an external synchronizing signal generator for synchronizing said plurality of digital recorders and a controller for generating a retrieval signal for retrieving said video signals on the basis of at least one said code and said time and date and for selecting said display signal;

each of said digital recorders include a synchronizing receiving and application circuit selected from a group comprising central synchronizing circuit for synchronizing a central processing unit included in each said digital recorders, playback lock circuit for synchronizing said playback of recorded signals, combined lock circuit for synchronizing said recording, said playback and a monitoring mode, time base correction circuit for synchronizing the timing of an internal synchronizing of a video signal originated by at least one of said transmitters, relay circuit for transferring said external synchronizing signal to at least one of said transmitters via said first transmission lines and combinations thereof, said method comprising the steps of:

a. generating and feeding said external synchronizing signal to synchronize said

plurality of digital recorders via said second transmission lines;

b. generating and feeding said retrieval signal to said plurality of digital recorders via said second transmission line for selectively retrieving said synchronous video signals; and

c. selecting said display signal.

115. (new) The method as set forth in claim 114, wherein said digital recorders record said video signals by routinely processing said video signals and storing the processed video signals on the basis of said time and date into at least one memory storage device to its capacity, in endless rotation, wherein freshly stored signals replace the oldest stored signals.

116. (new) The method as set forth in claim 115, wherein said memory storage device includes at least one exclusive memory portion for excluding a selected stored video signal from said endless rotation, comprising the further step of:

commanding a respective digital recorder to duplicate and re-store said selected video signal into said exclusive memory portion.

117. (new) The method as set forth in claim 114, wherein said step of feeding said external synchronizing signal to said digital recorders, comprising the further steps of:

propagating a pulse signal having a voltage level higher than a maximum voltage level of said video signals or lower than a minimum voltage level of said video signals to a respective digital recorder over one of said second transmission lines, in opposite direction to the propagation of said video signal over the same transmission line, by using a blanking period of said video signal;

applying said pulse signal to said receiving and application circuit.

118. (new) The method as set forth in claim 115, wherein said step of feeding said external synchronizing signal to said digital recorders, comprising the further steps of:

propagating a pulse signal having a voltage level higher than a maximum voltage level of said video signals or lower than a minimum voltage level of said video signals to

a respective digital recorder over one of said second transmission lines, in opposite direction to the propagation of said video signal over the same transmission line, by using a blanking period of said video signal;

applying said pulse signal to said receiving and application circuit.

119. (new) The method as set forth in claim 117, wherein said pulse signal is opposite in polarity to an internal synchronizing signal which is contained in said video signals.

120.(new) The method as set forth in claim 118, wherein said pulse signal is opposite in polarity to an internal synchronizing signal which is contained in said video signals.

121. (new) The method as set forth in claim 115, wherein each digital recorder further includes an alarm input for triggering alarm recording and for generating an alarm code for each of the triggered alarms, comprising the further step of:

registering said stored signals processed during each triggered alarm on the basis of each said alarm code for playback retrieval and for introducing alarm code signal

corresponding to said alarm code into said synchronous video signals along with said allotted code and said time and date.

122. (new) The method as set forth in claim 121, wherein said memory storage device includes at least one exclusive portion for excluding signals stored during said alarms from said endless rotation, comprising the further step of:

programming said digital recorders to duplicate signals processed during alarm and re-store the duplicated alarm signals into said exclusive memory portion.

123. (new) The method as set forth in claim 122, wherein said step of duplicating and re-storing said signals processed during alarms, comprising the further step of:

duplicating and re-storing signals processed prior to said triggering of said alarm and after said alarm has been cleared.

124. (new) The method as set forth in claim 123, wherein said step of generating said retrieval signal is adapted for retrieving said alarms stored signals, comprising the further step of:

generating and feeding an adapted retrieval signal on the basis of at least one of said code signal, said time and date and said alarm code.

125. (new) The method as set forth in claim 114, wherein said step of feeding said retrieval signal via said second transmission lines is propagated in reverse direction to the propagation of said synchronous video signals fed to said receiver through same transmission line and is timed to coincide with a blanking period of said video signal.

126. (new) The method as set forth in claim 114, wherein the introduction of said code signal into each said synchronous video signal is selected from a group comprising an introduction into said transmitters, an introduction into said first transmission lines, an introduction into said digital recorders and combinations thereof.

127. (new) The method as set forth in claim 126, wherein said code signal is introduced into said video signal during a blanking period of said video signal.

128. (new) The method as set forth in claim 121, wherein said time and date and said alarm code signal are introduced into said synchronous video signals during a blanking period of said video signal.

129. (new) The method as set forth in claim 114, wherein said receiver includes an on screen display circuit and select keys for superimposing upon command a selective alphanumeric onto a display of each said synchronous video signals, said superimposing selected from a group comprising an individual said allotted code for an individual display, multi said allotted codes for multi screen display, a single said time and date for an individual display, a single time and date for multi screen displaying identical time and date, multi said time and date for multi screen displaying varying said time and date and combinations thereof.

130. (new) The method as set forth in claim 121, wherein said receiver includes an on screen display circuit and select keys for superimposing upon command a selective alphanumeric onto a display of each said synchronous video signals, said superimposing selected from a group comprising an individual said allotted code for an individual display, multi said allotted codes for multi screen display, a single said time and date for an individual display, a single time and date for multi screen displaying identical time and date, multi said time and date for multi screen displaying varying said time and date, single said alarm code for a single alarm display, multi said alarm codes for multi screen displaying multi alarms and combinations thereof.

131. (new) The method as set forth in claim 129, wherein said on screen display includes a memory for storing said allotted codes and related data selected from a group comprising names, text, graphics, menus and combinations thereof for superimposing said data onto a display of said synchronous video signals upon command.

132. (new) The method as set forth in claim 130, wherein said on screen display includes a memory for storing said allotted codes, alarm codes and related data selected from a group comprising names, text, alarm particulars, graphics, menus and combinations thereof for superimposing said data onto a display of said synchronous video signals upon command.

133. (new) An apparatus for outputting a plurality of synchronous video signals from a plurality of digital recorders to a receiver, said synchronous video signals selected from a group comprising a playback of recorded signals, relayed signals and a combination thereof are originated and fed to said digital recorders via first transmission lines by a plurality of video transmitters;

each of said digital recorders include a synchronizing receiving and application circuit selected from a group comprising central synchronizing circuit for synchronizing a central processing unit included in each said digital recorders, playback lock circuit for synchronizing said playback of recorded signals, combined lock circuit for synchronizing

the recording, said playback and a monitoring mode, time base correction circuit for synchronizing the timing of an internal synchronizing of a video signal originated by at least one of said transmitters, relay circuit for transferring an external synchronizing signal to at least one of said transmitters via said first transmission lines and combinations thereof;

each of said synchronous video signals contains a code signal corresponding to a code allotted to one of said transmitters and a synchronous time and date signal corresponding to one of the time and date of the recording of said recorded signal and the time and date of outputting said relayed signal;

said synchronous video signals are fed to said receiver via second transmission lines for outputting a display signal selected from a group comprising at least one individual video signal, sequencing individual video signals, at least one multi screen signal and sequencing multi screen signals;

said receiver includes an external synchronizing signal generator feeding said synchronizing signal via one of said second transmission lines and dedicated lines to said receiving and application circuits for synchronizing each of said plurality of digital recorders and a controller for generating and feeding a retrieval signal via said second transmission lines to said digital recorders for retrieving said video signals on the basis of at least one said code and said time and date and for selecting said display signal.

134. (new) The apparatus as set forth in claim 133, wherein said digital recorders record said video signals by routinely processing said video signals and storing the processed video signals on the basis of said time and date into at least one memory storage device to its capacity, in endless rotation, wherein freshly stored signals replace the oldest stored signals.

135. (new) The apparatus as set forth in claim 134, wherein said memory storage device includes at least one exclusive memory portion for excluding a selected stored video signal from said endless rotation by commanding a respective digital recorder to duplicate and re-store said selected video signal into said exclusive memory portion.

136. (new) The apparatus as set forth in claim 133, wherein said external synchronizing signal is a pulse signal having a voltage level higher than a maximum voltage level of said video signals or lower than a minimum voltage level of said video signals fed to a respective digital recorder over one of said second transmission lines, in opposite direction to the propagation of said video signal over the same transmission line, during a blanking period of said video signal for feeding said pulse signal to said receiving and application circuit.

137. (new) The apparatus as set forth in claim 134, wherein said external synchronizing is a pulse signal having a voltage level higher than a maximum voltage level of said video signals or lower than a minimum voltage level of said video signals is fed to a respective digital recorder over one of said second transmission lines, in opposite direction to the propagation of said video signal over the same transmission line, during a blanking period of said video signal for feeding said pulse signal to said receiving and application circuit.

138. (new) The apparatus as set forth in claim 136, wherein said pulse signal is opposite in polarity to an internal synchronizing signal which is contained in said video signals.

139. (new) The apparatus as set forth in claim 137, wherein said pulse signal is opposite in polarity to an internal synchronizing signal which is contained in said video signals.

140. (new) The apparatus as set forth in claim 134, wherein each digital recorder further includes an alarm input for triggering alarm recording and for generating an alarm code for each of the triggered alarms, and for registering said stored signals processed during each triggered alarm on the basis of each said alarm code for playback retrieval and for introducing alarm code signal corresponding to said alarm code into said synchronous video signals along with said allotted code and said time and date.

141. (new) The apparatus as set forth in claim 140, wherein said memory storage device includes at least one exclusive portion for excluding signals stored during said alarms

from said endless rotation by a program for duplicating the signals processed during alarm and for re-storing the duplicated alarm signals into said exclusive memory portion.

142. (new) The apparatus as set forth in claim 141, wherein said duplicating and said re-storing are extended to include duplicating and re-storing signals processed prior to said triggering of said alarm and after said alarm has been cleared.

143. (new) The apparatus as set forth in claim 142, wherein said generating of said retrieval signal is adapted for retrieving said alarms stored signals by generating and feeding an adapted retrieval signal on the basis of at least one of said code signal, said time and date and said alarm code.

144. (new) The apparatus as set forth in claim 133, wherein the feeding of said retrieval signal via said second transmission lines is propagated in reverse direction to the propagation of said synchronous video signals fed to said receiver through same transmission line and is timed to coincide with a blanking period of said video signal.

145. (new) The apparatus as set forth in claim 133, wherein the introduction of said code signal into each said synchronous video signal is selected from a group comprising an introduction into said transmitters, an introduction into said first transmission lines, an introduction into said digital recorders and combinations thereof.

146. (new) The apparatus as set forth in claim 145, wherein said code signal is introduced into said video signal during a blanking period of said video signal.

147. (new) The apparatus as set forth in claim 140, wherein said time and date and said alarm code signal are introduced into said synchronous video signals during a blanking period of said video signal.

148. (new) The apparatus as set forth in claim 133, wherein said receiver includes an on screen display circuit and select keys for superimposing upon command a selective

alphanumerics onto a display of each said synchronous video signals, said superimposing selected from a group comprising an individual said allotted code for an individual display, multi said allotted codes for multi screen display, a single said time and date for an individual display, a single time and date for multi screen displaying identical time and date, multi said time and date for multi screen displaying varying said time and date and combinations thereof.

149. (new) The apparatus as set forth in claim 140, wherein said receiver includes an on screen display circuit and select keys for superimposing upon command a selective alphanumerics onto a display of each said synchronous video signals, said superimposing selected from a group comprising an individual said allotted code for an individual display, multi said allotted codes for multi screen display, a single said time and date for an individual display, a single time and date for multi screen displaying identical time and date, multi said time and date for multi screen displaying varying said time and date, single said alarm code for a single alarm display, multi said alarm codes for multi screen displaying multi alarms and combinations thereof.

150. (new) The apparatus as set forth in claim 148, wherein said on screen display includes a memory for storing said allotted codes and related data selected from a group comprising names, text, graphics, menus and combinations thereof for superimposing said data onto a display of said synchronous video signals upon command.

151. (new) The apparatus as set forth in claim 149, wherein said on screen display includes a memory for storing said allotted codes, alarm codes and related data selected from a group comprising names, text, alarm particulars, graphics, menus and combinations thereof for superimposing said data onto a display of said synchronous video signals upon command.